



FINAL REPORT



**DEVELOPMENT OF TECHNICAL AND MATERIAL SUPPORTS
PEANUT FARMING DEVELOPMENT PROGRAM
IN NUSA TENGGARA BARAT - INDONESIA**

Research Institution of Mataram University
in cooperation with
Smallholder Agribusiness Development Initiative (SADI)
International Finance Corporation (IFC)
and
PT. Bumi Mekar Tani (BMT)

Contract No 7149492, December 8th 2008

IFC - SADI



PT BUMI MEKAR TANI



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LIST OF TERMS AND ABBREVIATIONS

- Balitkabi : *Balai Penelitian Tanaman Kacang-Kacangan dan Umbi-Umbian (Research Institute for Bean and Tuber crops)*
- BPS : *Biro Pusat Statistik (Bureau of Central Statistical Data)*
- BPTP : *Balai Pengembangan Teknologi Pertanian (Research Institute for Development of Agricultural Technology)*
- IFC : International Finance Corporation
- Lemlit : *'Lembaga Penelitian'* (Research Institution)
- NTB : *'Nusa Tenggara Barat'* (West Nusa Tenggara), a province in Indonesia consisting of two main islands, i.e., Lombok and Sumbawa Islands.
- P3LKT : *Pusat Penelitian dan Pengembangan Lahan Kering Tropika (Center for Research and Development of Semi Arid Dry Land)*
- PT. BMT : *'Perusahaan Terbatas'* (Ltd.) Bumi Mekar Tani, is a branch of PT. Garuda Food, operating in peanut farming industry in Mataram, NTB.
- SADI : Smallholder Agribusiness Development Initiative
- Unram : University of Mataram

EXECUTIVE SUMMARY

Peanut is an important food crop having been grown by farmers in NTB since years. However, up to now the productivity and profitability of the farming are very low. To deal with the situation, SADI-IFC has run the program of peanut farming development in NTB in cooperation with various institutions. An action plan in the program is the development of technical and material supports. To execute the plan, the Research Institution of University of Mataram (Lemlit Unram) has been trusted as the constant firm, which is formulated into an agreement contract No. 7149492 signed in December 8th, 2008.

This project is a consultancy service in developing technical and material supports for PT. BMT and farmers. The works or activities that must be done by the consultant firm (Lemlit Unram) are focused on 3 main aspects: (1) water supply management, (2) seed management, and (3) simple farming tools for peanut farming. The long term objectives are to improve productivity and profitability of peanut farming, which in turn reduce poverty of community in NTB. The specific objectives of those activities are to develop (1) appropriate water supply management (WSM), (2) appropriate solutions for the problems of seed management (SM), and (3) simple farming tools (SFTs) for peanut farming in NTB.

Although the implementation of this project is emphasized on the 3 aspects, the other aspects associating to peanut farming are also taken into account as components in the system of peanut farming. The development of WSM includes identification and evaluation of soil and water resources and problems of WSM in NTB, and the possible ways to develop water resources for peanut farming. Activities to develop SM include identification of problems and finding out the solutions for the problems, and training of SM for the staffs of BMT and farmers; and those to develop simple tools include identification of available farming tools (including the tools in PT. BMT), evaluating and improving the tools. In addition, several other activities, i.e., workshop, seminar, field day about peanut farming, formal and informal communications with corresponding institutions/offices, are carried out.

The implementation results of this project are in forms of information about the general situation of peanut farming in NTB in present day, public perception on peanut farming, problems of water and seed supplies, operational cost for peanut farming, and several alternative solutions to solve the problems. Moreover, several further actions are proposed.

In general, the present condition of peanut farming in NTB is not so good. The productivity (0.8 - 2.2 t/ha, average 1.2 t/ha) and profitability of the farming are low. Moreover in view of farmers, peanut farming is not the main farming business, so that they do not seriously manage their farming. On the other hand, there are large areas that potentially utilizable for peanut farming development in NTB as well as the market demand for peanut.

The existence of PT. BMT that has established agribusiness partnership with peanut farmers in NTB since 2000 has significant contribution to the peanut farming development in NTB. In this partnership, the company acts not only as a buyer for peanut from farmers but also provides technical supports and seed. The applied partnership system is quite good, transparence, and fair. Moreover, the partnership

system is appropriate to be applied for other farming business (for examples in tobacco or corn farming). The basal (fixed) price in 2009 for fresh peanut pod with the grade of 1/1 is 2,350 IDR/kg, and additional price of 150 IDR/kg will be given for the products with each grade level higher (for an example, the price for grade 2/1 is $2,350 + 150 = 2,500$ IDR/kg). This system has encouraged farmers to seriously work to gain high quality of peanut and farming profit. The main problem being faced by PT. BMT is the less supply of peanut from farmers to full fill its factory capacity. The high demand of the company for fresh peanut is a marketing opportunity for the farmers in NTB. Therefore, peanut farming productivity and profitability in NTB most probably will improve significantly soon if the other farming constraints can be minimized.

There are enough land and water resources in NTB which may be utilized for peanut farming. The present planting areas of peanut is about 40,000 ha and those may be extended to about 200,000 ha. From the total of present planting areas, only about 2,000 ha is the farming land of farmers who have partnerships with PT BMT. Other than rain fall, water supply resources for peanut farming are water dam, *embungs* (artificial water reservoirs), shallow and deep ground water wheels, rivers, and springs. However, there are many problems in optimizing the use of water resources for peanut farming. The limited water supply that causes the failure of planning or yield is the main problem of peanut farming mainly in dry land that is the largest type of peanut farming land in NTB. Efforts being proposed to improve water use efficiency are by applying appropriate land management (such as applying organic matter), planting schedule, and irrigation systems by utilizing the deep ground water resources.

Due to there is no peanut seed provider in NTB, PT BMT has to act as a seed provider for its farmers by allocating some of its raw material (fresh peanut pods) for use as seed. This situation is a serious problem for the company and for development of peanut farming in NTB. A proposed solution for the problems of SM is by conducting trainings for several farmers or farmer groups to become peanut seed providers. Meanwhile, PT. BMT establishes a seed department that will provide seed to several other farmers. The first step of this recommendation was implemented in this project by conducting a basic training about seed management for the technical staffs of PT. BMT and several peanut farmers. This program should be carried out further to overcome the problem of peanut seed supply to the farmers in NTB.

Concerning the implementation of simple tools development for peanut farming, several new simple tools for peanut farming have been successfully developed. The tools are (1) a multifunction tractor that can be appropriately used as a soil cultivator, a weeder, a soil digger/sub-soiler, a plating digger, a seeder, a fertilizer applicator, and a field transportation vehicle, (2) modifying/improving the planting digger and seeder which were initially constructed by PT. BMT, and (3) introducing a traditional thresher made from banana steam. The tools were successfully tested on various field conditions. These efforts need to be continued in order to make better and possibly to develop other more appropriate tools.

The additional activities, i.e., workshops, seminars and exhibitions, which are carried out during the implementation of this project, results several positive impacts to the development of peanut farming in NTB. The impacts are (1) improving the attention from various parties to the important of peanut farming development in NTB, (2) peanut farming is not viewed as a small business anymore; and peanut should be listed as a leading commodity that must be developed in NTB, (3) various corresponding

institutions have committed to support the implementation of peanut farming development programs in NTB, and (4) the establishment of a peanut forum which may be used for discussing any issue about peanut.

Concerning the running of this project, it may be concluded that this project has been well and productively implemented. More targets than of those stated in the cooperation contract between SAIR-IFC with Lantini Unuan are achieved. Several proposed activities that need to be further carried out to develop peanut farming in NTB are continuing the development of the three aspects and implementing the commitments of various stakeholders on the farm levels, to achieve the long term objectives and targets of Peanut Development Programs in NTB. In addition, the developments of peanut post management and organic peanut farming in NTB are necessary to be launched.

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